



2013 Annual Drinking Water Quality Report

Town of Burgaw
Public Works Department
Water System Number: 04-71-010

Dear Customers,

The Town of Burgaw Public Works Department is pleased to present to you the 2013 Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and our efforts to protect our water resources. We are committed to ensuring the quality of your water and service 365 days a year.

Town of Burgaw

Public Works

109 N Walker Street
Burgaw, NC 28425
(910) 259-2901
<http://townofburgaw.com>

EPA

Safe Drinking Water Hotline
(800) 426-4791

Pass it on

Businesses and landlords are requested to pass this information on to their tenants and customers. Additional copies can be obtained at Town Hall or online at: <http://townofburgaw.com/water-sewer>

When You Turn on the Tap, Consider the Source

The Town of Burgaw supplies your drinking water from "deep" wells, not surface water. These wells are not susceptible to the runoff drainage issues listed in the proceeding paragraphs. These wells withdraw water from the Black Creek Aquifer approximately 350ft below the ground elevation. They supply about 500,000 gallons of drinking water each day. The Town treats this water with 15% sodium hypochlorite (liquid chlorine) as required by NCDENR.

What the EPA Wants You to Know...

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. EPA/CDC

guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbi-

cides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.



Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower. The relative susceptibility rating of each source for the Town of Burgaw was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The assessment findings are summarized in the following tables:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Ashe St. Well	Moderate	March 15, 2010
S. Smith St. Well	Moderate	March 15, 2010
N. Smith St. Well	Moderate	March 15, 2010
Wright St. Well	Moderate	March 15, 2010

It is important to understand that a susceptibility rating of “higher” **does not** imply poor water quality, only the system’s potential to become contaminated by PCSs in the assessment area.



The complete SWAP Assessment report for the Town of Burgaw may be viewed on the Web at: www.ncwater.org/pws/swap. Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov. Please indicate your system name, number, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098.

Water Quality Data Table of Detected Substances...

We routinely monitor for over 150 substances in your drinking water according to Federal and State laws. The tables shown list all of the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2013.**

The EPA and the State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminants monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.



Extra Note: Maximum Contaminant Levels (MCLs) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water everyday at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Burgaw is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available on the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

MICROBIOLOGICAL SUBSTANCES					
Substance (units)	MCL Violation Yes/No	Your Water	MCLG	MCL	Likely Source
Total Coli form Bacteria 2013 (presence or absence)	N	0	0	One monthly positive	Naturally present in the environment

INORGANIC SUBSTANCES							
Substance (units)	Sample Date	MCL Violation Yes/No	Your Water	Range Low - High	MCLG	MCL	Likely Source
Fluoride (ppm)	12/07/09	No	1.7	1.1 - 1.7	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.

LEAD AND COPPER SUBSTANCES						
Substance (units)	Sample Date	Your Water	Number of sites found above the AL	MCLG	MCL	Likely Source
Copper (ppm) (90th percentile)	Aug 2013	0.311	0	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (90th percentile)	Aug 2013	3	0	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits

RADIOLOGICAL SUBSTANCES						
Substance (units)	Sample Date	Your Water (AVG)	Range Low - High	MCLG	MCL	Likely Source of Contamination
Alpha Emitters (pCi/l)	2013 Quarterly-Composite	ND	ND	0	15	Erosion of natural deposits
Gross Beta (pCi/l)	2013 Quarterly-Composite	13.3	8.6-18.0	0	50	Decay of natural and man-made deposits

DISINFECTION BY-PRODUCT CONTAMINANTS						
Substance (units)	MCL/MRDL Violation Yes/No	Your Water (AVG)	Range Low - High	MCLG	MCL	Likely Source of Contamination
TTHM (ppm)* Total Trihalomethanes	Yes	0.067	0.019-0.098	N/A	0.08	By-product of drinking water chlorination
HAAs (ppb) Total Haloacetic Acids	No	18	12-23	N/A	0.6	By-product of drinking water disinfection
Chlorine (ppm)	No	0.57	0.07-2.08	MRDLG = 4	MRDL = 4	Water additive used to control microbes

*In the first quarter of 2013 the Town of Burgaw water system had a Trihalomethanes (TTHM) related violation. Please see Page 4 for more details.

WATER CHARACTERISTICS CONTAMINANTS				
Secondary Contaminants, required by the NC Public Water Supply Section, are substances that affect the taste, odor, and/or color of drinking water. These aesthetic contaminants normally do not have any health effects and normally do not affect the safety of your water.				
Contaminant (units)	Sample Date	Your Water (AVG)	Range Low - High	Secondary MCL
Sodium (ppm)	12/06/12	191	138-335	N/A
pH	12/06/12	7.71	7.54-7.8	6.5-8.5

Definition of Terms

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfection Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfection Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Not-Applicable (N/A): Information not applicable/not required for this particular water system or for a particular rule.

Non-Detects (ND): Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

Unit of Measurement

Parts per million (ppm) or Milligrams per liter (mg/L): One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or micrograms per liter (ug/L): One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L): Picocuries per liter is a measure of the radioactivity in water.



Violations That Your Water System Received During 2013

During 2013 we received a trihalomethane (THM) violation that covered the time period of the first quarter of 2013. We have taken corrective actions to assure this does not happen again. The requirement is that the average of four quarterly samples is less than 0.080 parts per million (ppm). Samples taken in February 2013 exceeded the Maximum Contaminant Level (MCL) by two one thousandths of a milligram. Our sample average was 0.082 ppm and the MCL is 0.080 ppm. Subsequent samples were back in compliance. Sample results for the second, third and fourth quarters of 2013 were 0.077 ppm, 0.064 ppm and 0.046 ppm, all below the MCL of 0.080 ppm. Consumers do not need to take any action and do not need to use an alternative water supply. There was not an immediate risk, if there had been you would have been notified immediately. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Burgaw Public Works is increasing water flushing and making other operational changes to insure that we continue to stay in compliance as regulations become increasingly stringent. Please contact Burgaw Public Works at (910) 259-2901 if you have any questions or would like additional information.

⇒ Top 6 things you can do to increase your water efficiency



Water Conservation: Waste Not, Want Not

Replace Water Wasting Toilets

Replacing an older toilet with a low-flow model can save an average household 30 gallons of water a day and up to \$140 per year.

Upgrade Your Showerhead

If you have a 2.5 gallon-per-minute (gpm) showerhead, investing in a low-flow 2.0 gpm unit will save a family of four approximately 20,000 gallons of water per year and up to \$260.

Look for the WaterSense label when selecting new fixtures:

<http://www.epa.gov/watersense/products/index.html>

Find Leaks

Conduct a home audit to find leaks. Fixing leaks can on average save 10 gallons per day per household. To check for leaks in the toilet, put a few drops of food coloring in the toilet tank. If the color appears in the bowl without flushing within 30 minutes, you have a leak that needs immediate repair.

Landscape Irrigation

Replace turf with mulch or select plants that need little water. Group plants with similar water needs and schedule lawn irrigation for early morning or evening hours to reduce the amount of evaporation during daylight hours.

Adjust the Mower

Adjust your mower to a higher setting. Consider leaving clippings on the lawn. Longer grass blades provide shade and help hold in moisture longer. Adjust your lawn and/or gardening watering schedule for optimum efficiency.

Install a Rain Barrel

Lawn and garden watering make up nearly 40% of total household water use during the summer. Diverting water from storm drains also decreases the impact of runoff to streams. A rain barrel is an easy way to have a consistent supply of fresh water for outdoor use.

Help Us Serve You Better: Water quality and safety are sometimes difficult to understand, and the information in this brief report may not answer all of your questions. For additional information, questions or concerns, please contact the Public Works Director at (910) 259-2901 or email us at public.works@townofburgaw.com. Additional copies of this report are available at Town Hall or online at <http://townofburgaw.com/water-sewer>.